LEPIDOPTERA IN SLOVENIA: A LEPIDOPTERIST'S ACCOUNT OF THE SOCIETY'S FIELD EXPEDITION TO SLOVENIA IN 2003

J. W. PHILLIPS[1] AND A. J. PICKLES[2]

[1]*"Maytime", St Peter's Road, Northney, Hayling Island, Hampshire PO11 0RT*
[2]*2A Park Avenue, Lymington, Hampshire SO4 9GX*

INTRODUCTION

The seeds were sown by Mike Wilson, President 2004 – Head of Entomology, National Museums & Galleries of Wales, Cardiff when he attended the European Hemiptera meeting held in 2001 on the Adriatic coast of Slovenia.

The idea was seen as a possible initiative between the British Entomological & Natural History Society and the Slovenian Entomological Society and a link between National Museums & Galleries of Wales and The Slovenian Museum of Natural History, Ljubljana.

In Autumn 2001 a general invitation was extended to BENHS members via an advertisement included in the Society's Journal (Vol 14, Part 4, December 2001) with a request to register interest.

Unfortunately it transpired that the time scale for any firm commitments for 2002 proved too onerous and those that had expressed an interest were contacted with a view to signing up for a possible expedition to Slovenia in 2003 (see Figs 1 & 2).

In the event, 10 people from the UK covering a range of interests including Aculeate Hymenoptera, Diptera, Orthoptera, Coleoptera, Hemiptera and last but by

Fig. 1. Members of the expedition having a rest at Škrline, near the river Dragonja (210-A1, 80m), 8 June 2003. Left to right: Mark Pavett, Bogdan Horvat, Tony Pickles, Darwyn Sumner, John Phillips and Mike Wilson.

Fig. 2. Map of Slovenia.

no means least Lepidoptera committed themselves for 2003 and dates were set to visit Slovenia between 1st and 12th June 2003. The expedition members were Darwyn Sumner, Mark Pavett, Malcolm Smart, Mike Wilson, Peter Hodge, Mike Edwards, David Slade and Ralph Hobbs together with the authors (Fig. 1).

Whilst most participants could travel light and thus fly, an interest in Lepidoptera does not allow for such luxury, consequently the authors were forced to set off a few days early in advance by road carrying generators, light-traps, and other heavy equipment.

Our base for the stay was the Hudičevec Tourist Farm at Razdrto close to Postojna (Fig. 3), south west of the capital Ljubljana; which basically consists of suites of accommodation with a restaurant and of course, essentially, a bar attached to a working farm (Fig. 4).

The area rests at the foothills of the Nanos range of mountains in the south-west of the country very close to the Gulf of Trieste, north of Croatia and within striking distance of Italy and Venice.

Accommodation was kindly arranged via our hosts, the Entomology Department of the Slovenian Museum of Natural History and it was from here that department staff with several cars collected and conveyed us to various predetermined localities of different types, some days in the mountains, some near the coast, thereby giving us a taste of the variety of habitats on offer in their wonderful country.

In the limited time available it was only possible to visit a brief selection of sites selected by the museum, some of which suited the lepidopterists, others were more

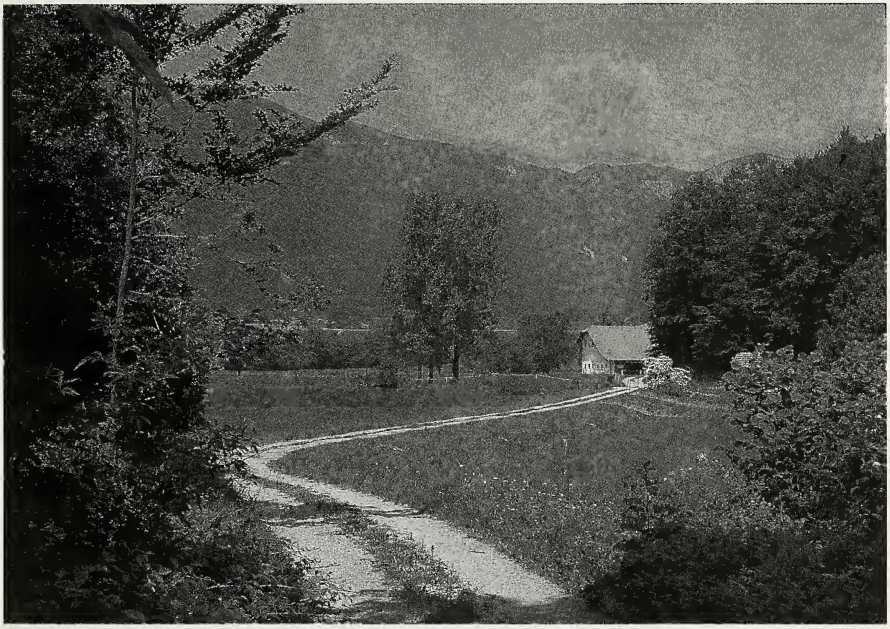

Fig. 3. Hudičevec Tourist Farm.

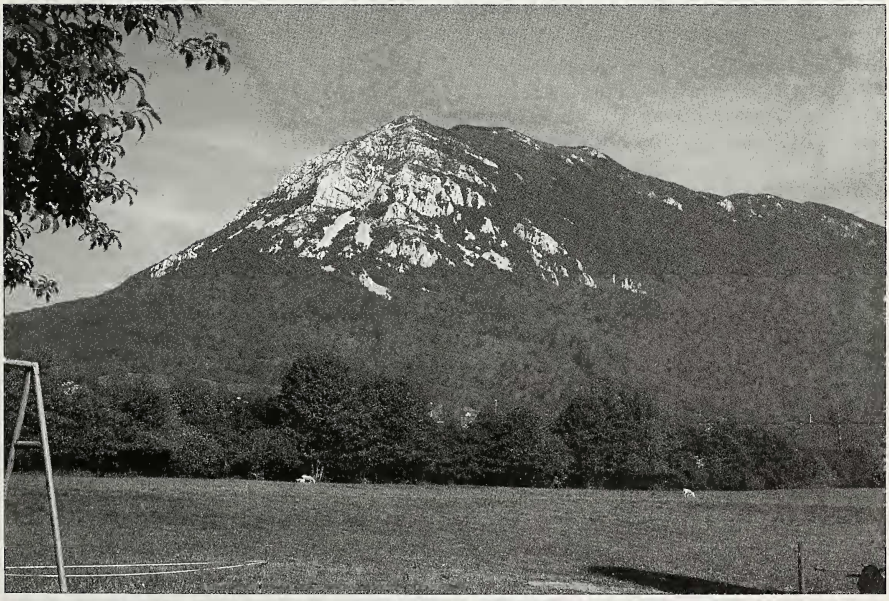

Fig. 4. Nanos Range – View from the Bar.

productive for the other Orders; however virtually everywhere one came across wonderful flower-rich meadows currently untouched by the EU Common Agricultural Policy where butterflies and other invertebrates abounded, although even now signs of development including road building were evident. The exact locations of the sites **A–M** visited are given in Appendix I.

Whilst to date land use has been mostly low-intensity farming with unimproved meadows cut for hay or grazed in the mountains which support an abundance of wild flowers; as the population becomes more urbanised the steeper meadows are being left uncut and encroaching scrub and woodland are gradually engulfing the countryside with inevitable loss of suitable habitat.

History of Slovenia

Slovenia was originally one of the old Balkan states and is situated at the northernmost end of the Adriatic, at the eastern end of the Alps where it borders Austria to the north, Hungary to the east, Croatia to the south and Italy to the west, with a short Adriatic coastline between Italy and Croatia.

Formally part of the Yugoslavian Federation it has been fully independent since 1991 and joined the European Union in 2004.

Landscape Regions

Slovenia can be divided into four basic landscape regions, namely Alpine and Sub-Alpine, Plains of the north-east, Karst Hills and Grasslands, and Coastal Mediterranean (Fig. 2).

A significant proportion of Slovenia is hilly, the two main river systems being the Sava, upon which the capital Ljubljana is situated and further, east the Drava. The principal mountain range to the north-west bordering Italy is the Julian Alps with the Kamnik Alps to the north bordering Austria.

The main geology is limestone with a rich grassland and alpine flora.

Beech and fir trees predominate in the hills but mixed deciduous woodland including oaks can be found in or near the river valleys.

In the meadows the grass is cut up to three times a year according to the prevailing weather conditions; after the cut the Lepidoptera tend to disappear, but soon return after two or three weeks.

Expedition Analysis and Notes

30 & 31 May 2003 – Having previously loaded the bulk of our equipment into the camper van we departed Hampshire at about 08.30h proceeding via Dover to Dunkirk, the ferry arriving about 15.30h local time, then via Calais and the auto-routes through eastern France and into Germany.

An early start on the second day via Germany and Austria saw us arriving in the Bled area north of Ljubljana late that evening; a total journey of about 900 miles.

1 June 2003 – Proceeding via Ljubljana we journeyed south-west down to the Postojna area, and quickly located our base, the Tourist Farm at Hudičevec.

As we were too early and the main body of the party was not flying in until late that evening we took the opportunity to explore the local area a little, taking the road west to Vipava via Razdrto to near Otosce – **Site A.**

In perfect humid hot and overcast conditions we stopped at a lay-by on this road where we came across a beautiful patch of grassland covering a hillside interspersed with scrub oak and other trees literally teeming with fritillary butterflies, day-flying moths and other invertebrates, a truly amazing and stimulating sight.

Fig. 5. Cerkinsko Jezero Lake.

We were to return to this site quite a few times during our stay in order to carry out further daytime survey work and to conduct some MV trapping at night.

Late afternoon saw us back at Hudičevec to await the remainder of the group.

2 June 2003 – Met the other members over breakfast who had flown in over night and had been brought to the farm by Museum staff.

As our hosts, the Slovenian Museum of Natural History were not arriving until the following day we decided to convey some of the group up to our site of the previous day near Otosce – **Site A.**

This proved just as productive as the day before with equally good weather conditions prevailing, in fact over the period this site proved the most productive for Lepidoptera with 102 species recorded including ten species of zygaenids, the beautiful rare geometer *Idaea aureolaria* (D. & S.) which abounded on the *Genista*, the arctiid *Spiris striata* (L.) which seemed to fly up at every step and the interesting saturnid, *Perisomena caecigena* (Kupido) which we found as larvae on scrub oak.

3 June 2003 – Joined by our hosts, the staff of Slovenian Museum Entomology Department with transport led by Dr Tomi Trilar and taken to two sites during the day.

Our first stop was at Volčje Blošco Jezero – **Site B**, east of Postojna, a high alpine meadow surrounding a small lake with numerous butterflies and moths, including *Erebia medusa* (D. & S.), *Carterocephalus palaemon* (Pallas), *Iphiclides podalarius* (L.), *Euphydryas aurinia* (Rott) and *Melitaea cinxia* (L.).

Amongst the moths it was nice to come across *Scopula immorata* (L), (Lewes Wave), this species having long since disappeared from the UK fauna.

On our way back we briefly stopped off at Rakov Škocjan – **Site C**, a wooded stream margin with a few butterflies where *Leptidea sinapis/reali* (L.) and *Cyanaris semiargus* (Rott) were flying.

4 June 2003 – This trip was firstly to one of the great sights and natural attractions in this part of Slovenia, the Cerknisko Jezero lake area south of Cerknica, stopping near Gorenje Jezero at the south-eastern end of the lake – **Site D** (Fig. 5). This is a vast expanse of wetland which has a unique geological feature in as much as the area is fed by underground streams which over the year floods in spring and then empties over the following months leaving the area dry.

These conditions provide a wonderful habitat for birds but proved somewhat disappointing for Lepidoptera during our relatively short stay. However we were treated to the spectacle of a pair of White-tailed Eagles *Haliaetus albicilla* L. making their daily journey to catch fish marooned in the rapidly drying river beds.

We then visited a unique attraction where a model of the lake demonstrates the annual cycle for the education of visitors.

Our next stop was at Otok Otoski Gric – **Site E** – on the southern shore of the lake, an area of uncut meadows amongst woodland, again only a few species were encountered.

However an evenings MV trapping in good conditions back at **Site A** proved most productive with *Phyllodesmia tremulifolia* (Hb), *Idia calvaria* (D. & S.), *Minucia lunaris* (D. & S.) and *Catephia alchymista* (D. & S.), coming to light amongst others.

5 June 2003 – JWP decided to stay at base for the day to catch up with a back-log of recording which proved to be a mistake as AJP with the remainder of the party were taken to some high alpine sites in the area just north of Ajdovscina.

Three stops were made at Čaven Malagora (1235 m) – **Site F,** Sinjivrh Rob (841 m) – **Site G** – and Podkraj (833 m) – **Site H;** butterflies and moths abounded with *Parnassus apollo* (L.), *P mnemosyne* (L.), *Iphiolides podalarius* (L.), *Papilio machaon* (L.), *Hemaris tityus* (L.), *Macroglossom stellatarum* (L.) and *Zygaena vicia* (D. & S.), being worthy of note. The *Z. viciae* on this site had a cingulum unlike our subspecies and this initially confused AJP.

6 June 2003 – Our hosts were away attending a lecture by Mike Wilson in Ljubijana, so a return was made to **Site A** by some of our party where similar species to previous days were on the wing.

In the evening MV lights were run in the woodland adjacent to the tourist farm but despite reasonable conditions very little of note came to light.

7 June 2003 – This day our scene of operations was an area nearer the coast adjacent to the border with Italy to Pliskovica Ledina/Marenca **Site I** – a very dry and hot typical karst grassland area with scrub which included an interesting cave system complete with bats (Fig. 6).

Species of Lepidoptera were in reasonable numbers including the beautiful geometer *Schistostege decussata* (D. & S.), which was abundant in one small grove of bushes; here the moths were sitting on grass stems looking like mini zebras with their black and white striped wings. Pale yellowish larvae of a species clearly akin to our *Lycia* were at rest amongst the rapidly drying grass and these proved to be *Lycia florentina* (Stef), when bred through.

Our second stop was a holiday home with an organic small holding situated in a perfectly beautiful valley with flower meadows, bordered on both sides by woodland at Brje Doli **Site J** (Fig. 7).

Our host, the owner, Professor Matija Gogala, a retired senior member of the Slovenian Natural History Museum very kindly provided food and copious quantities of local wine and it was somewhat difficult to tear ourselves away net in hand in order to sample the Lepidoptera on offer.

The shear profusion of insects in this relatively small area was amazing and included *Colias alfacariensis* (Ribba), *Zygaena purpuralis* (Brunnich), *Z. carniolica*

Fig. 6. Pliskovica Ledina/Marenca – Karst Grassland.

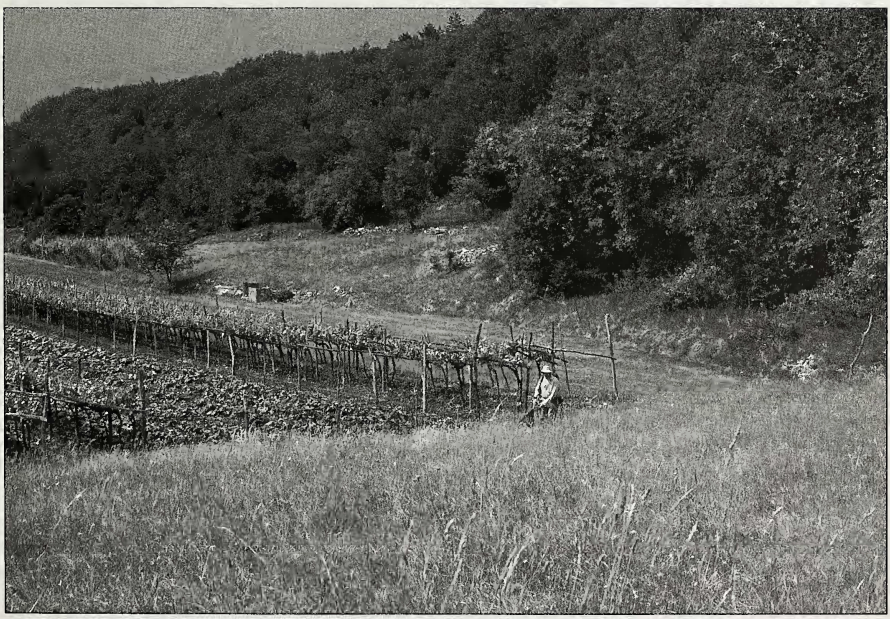

Fig. 7. Brje Doli – Valley with Flower Meadows.

Fig. 8. Škrline – River Dragonje.

(Scop), *Z. loti* (D.&S.), *Z. viciae* (D.&S.), *Argynnis niobe* (L.), *Limentis reducta* (Staud), *Iphiclides podalarius* (L.), *Leptidea sinapis/reali* (L.), *Pontia daplidice* (L.), together with *Heteropterus morpheus* (Pallas), to name but a few. The smallest European Wave, *Enmiltis pygmaearia* (Hb), was also encountered here. The site was a limestone outcrop and we were told it was probably the hottest area in Slovenia.

8 June 2003 – This was our last full day which started with a visit to Dragonja Križišče **Site K** – in the extreme south-west on the border with Croatia, comprising mixed farmland and a vine growing area next to some interesting scrubland.

Species encountered included *Jordanita globularia* (Hb), *Everes argiades* (Pallas), *Zygaena carniolica* (Scop.), *Brenthis daphne* (D.&S.), *Idaea ochrata* (Scop.), and *Enmelia trabealis* (Scop.). This was the only site where we saw the big satyrid, *Brintesia circe* (Fabr.), which we found had the habit of patrolling a fixed route and of returning to a favoured roost. AJP was lucky enough to encounter a female *Amata phegea* (L.), to which a male assembled while it was being photographed. A specimen of *Dysauxes famula* (Freyer), was also found at rest. Our second port of call was at Škrline on the River Dragonje **Site L** (Fig. 8) – a well known tourist spot, with scrub and woodland bordering its banks interspersed with smaller open areas.

Conditions were perfect with Lepidoptera in good numbers notable of which were *Nymphalis polychloros* (L.), *Heteropterus morpheus* (Pallas), *Libythea celtis* (Laicharting), sitting on the rocks by the river and also *Coenonympha oedippus* (Fabr.), a rare species currently considered endangered in Europe.

Pyropteron chrysidiformis (Esp.) was seen here as was the spectacular tiger moth *Rhyparia purpurata* (L.), of which we had also found as a larva earlier in the day.